



Botetourt County, Virginia

TMDL Action Plan: Sediment

Reporting Period: First TMDL Action Plan Report

Permit Number: VAR040023

In compliance with the Virginia Stormwater Management Program (VSMP) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4)



Botetourt County TMDL Action Plan

Sediment

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1. MS4 Program Review

Existing Legal Authorities, https://www.municode.com/library/va/botetourt_county/codes/code_of_ordinances

- Chapter 10 of the County Code describes the Erosion and Sediment Control and Stormwater Management Ordinances
- Chapter 6 of the County Code describes the Building Ordinance
- Chapter 8.5 of the County Code describes the drainage and flood control ordinance
- Chapter 21 of the County Code describes the Subdivision Ordinance
- Chapter 25 of the County Code describes the Zoning Ordinance

Proposed Legal Authority:

- Illicit Discharge, Detection and Elimination ordinance sent to public hearing by Board of Supervisors 9/22/2015

2. Legal Authority

This is the first Botetourt County TMDL Action Plan submittal. All existing legal authorities are noted above, including the newly proposed Illicit Discharge, Detection and Elimination ordinance.

3. Means and Methods for New Sources

Botetourt County will address discharges into the MS4 from new discharges through its existing legal authorities and through its recently proposed Illicit Discharge, Detection and Elimination Program.

4. Final TMDL report

Benthic Total Maximum Daily Load Development for the Roanoke River prepared for the Virginia Department of Environmental Quality March 2006 by The Louis Berger Group.

5. Waste Load Allocations (WLA) and Load Allocations (LA)

As part of the Benthic TMDL for the Roanoke River, a Waste Load Allocation (WLA) and Load Allocation (LA) has been established for each MS4 permittee within the overall drainage. Land-based loads have been allocated to each MS4 based on an area-weighted method. A 69.5% reduction in urban, agricultural and transitional land-based sources and in-stream erosion allocated to all MS4s within the watershed is required to achieve the TMDL endpoint.

Tables outlining the existing and allocated loads by land use, as well as required reductions, are located in Section 7.0 of the Final TMDL and are not listed in this document.

The total sediment WLA for Botetourt County, permit number VAR040023, as part of the Final TMDL is 286.1 tons/year.

6. Stressor Identification

Potential stressors to the benthic community within the Urbanized Area (UA) of Botetourt County include projects permitted under the General VPDES Permit for Discharges of Stormwater from Construction Activities with an Authorization to discharge under the Virginia Stormwater Management Act, agricultural activities (including cropland, livestock areas, and managed pasture), and historic in-stream erosion.

Tables listing VPDES permit holders, existing stormwater management BMPs and existing conservation agricultural BMPs are included in the Roanoke River Bacteria and Sediment TMDL Implementation Plan and are not listed in this document.

7. Means and Methods to Offset Stressors from New Sources

The primary urban sources of sediment within the UA are addressed above in Section 6. As part of the Final TMDL for the Roanoke River and the associated impairments, means and methods for offsetting stressors from new sources shall include the following:

- Oversight and enforcement authority for the Virginia Erosion and Sediment Control Law and Regulations
- Oversight and enforcement authority of the Virginia Stormwater Management Law and Regulations
- Proposed stormwater BMPs and associated acres treated (as listed in the Roanoke River IP)
- Proposed stormwater management facility retrofits and acres treated (as listed in the Roanoke River IP)
- Proposed livestock exclusion BMP systems (as listed in the Roanoke River IP)
- Proposed managed pasture BMP systems (as listed in the Roanoke River IP)
- Proposed cropland BMP systems (as listed in the Roanoke River IP)
- Proposed stream restoration projects (as listed in the Roanoke River IP)

Other means by which the locality will endeavor to offset stressors in all impaired segments within the UA include, but are not limited to:

- Targeted outreach and educational programs in the impaired watersheds for erosion control and stormwater management on developed lands
- Educational programs for designers and engineers on newly adopted stormwater BMPs
- Educational and instructive programs for contractors and home builders on site erosion control, stormwater management and the installation of the newly adopted BMPs

Botetourt County will also work closely with the Mountain Castles Soil & Water Conservation District (MCSWCD) and the local USDA Natural Resources Conservation Service to educate and provide outreach on aspects of agricultural BMPs to reduce future stressors to the benthic environment. Botetourt County currently provides funding for the MCSWCD to implement educational, conservation and technical assistance for county citizens.

8. Modifications to TMDL or watershed implementation plan that occurs during the term of this state permit as part of reapplication.

Botetourt County will address this at the time of permit reapplication.

9. Estimate of the Expected Cost

Estimates of the expected costs of offsetting the stressors to benthic impairments have been included in the Roanoke River Bacteria and Sediment TMDL Implementation Plan, Section 5.5. Total cost estimates included in the IP are broken down into individual watersheds for planning purposes. As such, the amount of land located within the UA of Botetourt County is much smaller than that of the entire watershed. Therefore, total cost of BMP installation and program implementation is expected to be far lower than that of the entire watershed.

10. Public Comment for TMDL Action Plan

The Botetourt County sediment TMDL Action Plan will be posted on the county's website once approved and advertised through the website and in an advertisement in local newspaper. Written public comments will be accepted until a date to be determined upon approval.

11. Milestones for Implementation

The implementation of water quality control measures and programs will take place in three stages over a 15-20 year timeline. Of the three stages, the first stage will focus on implementing the more cost-effective and commonly implemented actions, such as monitoring and enforcement within the ESC & SWM local programs, the installation of livestock exclusion, cropland and pasture conservation practices and outreach programs for urban-residential and development sectors.

Tables outlining the specific BMPs in the Roanoke River watershed, both urban and agricultural, and the implementation targets for each stage are provided in the Roanoke River Bacteria and Sediment TMDL Implementation Plan and are not included in this document.

12. Methods to Assess TMDL Action Plan effectiveness

Botetourt County does not provide current water quality monitoring on the impaired segments. All water quality data will continue to be collected by the Department of Environmental Quality (DEQ) for use in the TMDL plan and implementation phases going forward to track the level of stressors to the benthic environment going forward and rate progress of measurable goals.

Measureable goals will include items such as numbers of new stormwater management BMP systems installed (and acreage treated), stormwater retrofits (and acreage treated), number of agricultural BMPs installed (and acreage treated), number of outreach programs for urban residents and builders, numbers of citizens and businesses in attendance at outreach programs, and permit compliance data provided as part of the erosion and sediment control and stormwater management programs.

13. Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name _____ Title _____ Date _____